

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

JACOBS, Antonius A.C. and VERMEIJ, Paul

Serial Number: To be assigned Group Art Unit: To be assigned

Filed: Concurrently herewith Examiner: To be assigned

For: LAWSONIA INTRACELLULARIS VACCINE

Corresponding to: EP 00204660.5, filed December 20, 2000

PRELIMINARY AMENDMENT

Assistant Commissioner of Patents
Washington, D.C. 20231

December 20, 2001

Sir:

Prior to the calculation of the fee in the above-identified application, please make the following amendments:

IN THE CLAIMS:

Please replace claims 2, 4, 6, 7, 10 and 12 with the following new claims 2, 4, 6, 7, 10 and 12.

2. (amended) The nucleic acid sequence or part thereof according to claim 1, wherein the sequence has at least 80% homology with the nucleic acid sequence as depicted in SEQ ID NO: 1.

4. (amended) The nucleic acid sequence or part thereof according to claim 1, wherein the sequence has at least 80% homology with the nucleic acid sequence depicted in SEQ ID NO: 3.

6. (amended) The recombinant DNA molecule comprising a nucleic acid sequence according to claims 1-4, under the control of a functionally linked promoter.

7. (amended) Live recombinant carrier comprising a DNA fragment according to claim 5.

10. (amended) The *Lawsonia intracellularis* protein according to claim 9, having a sequence homology of at least 80% homology to the amino acid sequence as depicted in SEQ ID NO:2, or an immunogenic fragment of said protein.

12. (amended) The *Lawsonia intracellularis* protein according to claim 11, having a sequence homology of at least 80% homology to the amino acid sequence as depicted in SEQ ID NO: 4, or an immunogenic fragment of said protein.

Please cancel claims 16 and 17 without prejudice or disclaimer of the subject matter thereof.

Please add new claims 28 - 38 as follows:

-- 28. The nucleic acid sequence or part thereof according to claim 1, wherein the sequence has at least 90% homology with the nucleic acid sequence as depicted in SEQ ID NO: 1. --

-- 29. The nucleic acid sequence or part thereof according to claim 1, wherein the sequence has at least 95% homology with the nucleic acid sequence as depicted in SEQ ID NO: 1. --

-- 30. The nucleic acid sequence or part thereof according to claim 3, wherein the sequence has at least 90% homology with the nucleic acid sequence as depicted in SEQ ID NO: 3. --

-- 31. The nucleic acid sequence or part thereof according to claim 3, wherein the sequence has at least 95% homology with the nucleic acid sequence as depicted in SEQ ID NO: 3. --

-- 32. The DNA fragment according to claim 5, under the control of a functionally linked promoter. --

-- 33. Live recombinant carrier comprising a recombinant DNA molecule according to claim 6. --

-- 34. The *Lawsonia intracellularis* protein of claim 9, having a sequence homology of at least 90% homology to the amino acid sequence as depicted in SEQ ID NO: 2, or an immunogenic fragment of said protein. --

-- 35. The *Lawsonia intracellularis* protein of claim 9, having a sequence homology of at least 95% homology to the amino acid sequence as depicted in SEQ ID NO: 2, or an immunogenic fragment of said protein. --

-- 36. The *Lawsonia intracellularis* protein according to claim 11, having a sequence homology of at least 90% homology to the amino acid sequence as depicted in SEQ ID NO: 4, or an immunogenic fragment of said protein. --

-- 37. The *Lawsonia intracellularis* protein according to claim 11, having a sequence homology of at least 95% homology to the
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amino acid sequence as depicted in SEQ ID NO: 4, or an immunogenic fragment of said protein. --

-- 38. A vaccine for combating *Lawsonia intracellularis* infection comprising a protein according to claims 9 - 15. --

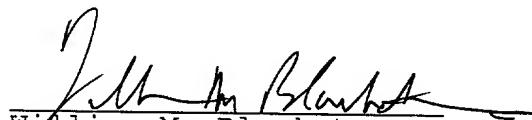
REMARKS

Claims 2, 4, 6, 7, 10 and 12 are amended, claims 16 and 17 are canceled, and claims 28 - 28 are added. Claims 1 - 15 and 18 - 38 are presented for examination.

The present amendments are made in order to correct grammatical errors and to conform the claim language to accepted U.S. PTO practice, and not for purposes of patentability under 35 USC 101, 102, 103 or 112, and no estoppel is created hereby.

It is believed that claims 1 - 15 and 18 - 38 recite a patentable improvement in the art. Favorable action is solicited. In the event any fees are required with this paper, please charge our Deposit Account No. 02-2334.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

2. (amended) [Nucleic] The nucleic acid sequence or part thereof according to claim 1, [characterised in that] wherein the sequence has at least 80%[, preferably 90%, more prefereably 95%] homology with the nucleic acid sequence as depicted in SEQ ID NO: 1.

4. (amended) [Nucleic] The nucleic acid sequence or part thereof according to claim 1, [characterised in that] wherein the sequence has at least 80%[, preferably 90%, more preferably 95%] homology with the nucleic acid sequence depicted in SEQ ID NO: 3.

6. (amended) [Recombinant] The recombinant DNA molecule comprising a nucleic acid sequence according to claims 1-4 [or a DNA fragment according to claim 5], under the control of a functionally linked promoter.

7. (amended) Live recombinant carrier comprising a DNA fragment according to claim 5 [or a recombinant DNA molecule according to claim 6].

10. (amended) The *Lawsonia intracellularis* protein according to claim 9, having a sequence homology of at least 80%[, preferably 90%, more preferably 95%] homology to the amino acid sequence as depicted in SEQ ID NO:2, or an immunogenic fragment of said protein.

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12. (amended) The *Lawsonia intracellularis* protein according to claim 11, having a sequence homology of at least 80%[, preferably 90%, or more preferably 95%] homology to the amino acid sequence as depicted in SEQ ID NO: 4, or an immunogenic fragment of said protein.

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